

MINUTES
GEOGRAPHIC INFORMATION COORDINATING COUNCIL
May 11, 2005

PRESENT

Chair, Dempsey Benton. Members: Bryan Beatty, Bob Brinson, Rodney Bunch, Doug Phillips (for James Fain), Hugh Devine, Terry Ellis, Dianne Enright, Michael Fenton, Tom Gray, Rita Hagevik, Kevin Higgins, Reggie Hinton, Bill Holman, Susan Johnson, Chris Kannan (for Jerry Ryan), Bliss Kite, Kelly Laughton, Tim Lesser, Lee Mandell, Elaine Marshall, Joe McKinney, Carlton Myrick (for Gwynn Swinson), Anne Payne, Stephen Puckett, Forrest Robson (for Lyndo Tippett), Sandra Trivett (for Carmen Hooker-Odom), Rebecca Troutman, Jonathan Womer, David Wray (for Steve Troxler)

PROCEEDINGS

A meeting of the Geographic Information Coordinating Council was held on May 11, 2005 in the Board Room of the Department of Public Instruction in Raleigh, North Carolina. Chair Dempsey Benton called the meeting to order. The Minutes of the February 9, 2005 meeting were approved. Mr. Benton welcomed new members Sandra Trivett, representing the Department of Health and Human Services; and two new Governor Easley appointments, Rodney Bunch, the Assistant Manager for Pasquotank County; and Rita Hagevik, an assistant professor of science education at NC A&T University.

Other Council members reappointed to a three-year term by the Governor include Bill Holman, Executive Director of the Clean Water Management Fund; Bob Brinson, Director of Information Resources, Department of Corrections; Susan Johnson, Key Business Executive, City of Charlotte; and Gerald Ryan, Director, USGS North Carolina Water Science Center. The Governor reappointed Dempsey Benton to a three-year term to serve as Council Chair. Mr. Benton thanked former members Tim Brewer, Department of Community Colleges; Charlotte Turpin, North Carolina Association of Educators; and Chris Wease, former Anson County Manager for their past service to the Council.

Status and Discussion of Priorities Before Council

Priority #1— Stream Mapping (Senate Bill 1152)

Dempsey Benton said this effort resulted from a legislative directive. The GICC endorsed a stream mapping plan that was presented to the General Assembly's Environmental Review Commission in January 2005. When the General Assembly considered strategies for hurricane recovery in western North Carolina, they included a stream mapping component for the western counties declared last fall as federal disaster areas, thanks to GICC action. Tim Johnson provided a map of the 19 counties involved in this project that will provide detailed stream data down to the six-acre drainage level. Key resources for this project are the recently acquired LIDAR data for the affected counties and new digital orthoimagery. The Center for Geographic Information and Analysis will convene an advisory committee that includes members of the

initial study group. Bill Holman said several groups, such as the Home Builders Association and others have been invited to a Stream Mapping briefing session on Monday, May 23 at 2:00 pm. This is expected to build public understanding of the benefits of the project.

Priority #2—Data Content Standards

Parcel Data Content Guidelines, Version 1. Zsolt Nagy discussed the Parcel Data Content Guidelines. He said the Statewide Mapping Advisory Committee developed recommendations for core parcel data for multi-jurisdictional use. Earlier versions were brought to the GICC. He reported that more than 12 counties were interviewed as well as 12 users that could provide a broad regional perspective. Members of the committee also participated in national standards' review. The staff hosted a post-Hurricane Isabel workshop to assess the use of parcel data in emergency situations. Comments were solicited from the NC Property Mappers Association, the NC Geographic Information Systems conference, and the Local Government Committee. He stated that this is version 1; there will be a version 2 refined over time. Mr. Nagy mentioned that there was some insightful commentary from Henderson County relating to the 1936 Machinery Act (subsection of G.S. 105) that established taxation naming conventions, such as "listing" versus today's more common use of "owner" by local governments. Mr. Nagy said the decision was to use current naming conventions in the parcel guidelines. Rebecca Troutman asked Kelly Laughton, who works for Henderson County, if she was satisfied with the SMAC's decision. Ms. Laughton replied that her biggest concern is with how the data is maintained versus the naming conventions when data is shared. This standard addresses how the data is shared and therefore there is no problem. Mr. Benton asked if the Machinery Act is under the county's purview. Ms. Troutman said NC General Statute 105 regulates property tax collection and tax assessment.

Action #1: The Council adopted the Parcel Data Content Guidelines, Version 1 as presented by the Statewide Mapping Advisory Committee.

Geographic Data Content Standard for Transportation Roads Data, Version 1. Mr. Holman asked Forrest Robson to present the report from the Roads Data Content Standards Group. Mr. Robson referred to the 31-page document and reminded the Council that the content standard applies to attributes for the digital roads data. He said the Addendum, beginning on page 11, contains a full metadata example for roads using the Federal Geographic Data Committee content standards. Mr. Robson said this version strived to define the attributes of roads only, and is the barebones. The November 2004 draft was presented at the March 2005 NC Geographic Information Systems conference. The task force has begun additional work on version 2, which will offer a complete roads data model.

Anne Payne said the goal should be to combine street centerlines for routing applications, and include elevation data and one-way streets in the next version. Mr. Robson said those were common comments from local governments and would be addressed in the modeling. Mr. Benton asked how the standard will be distributed to local governments. Mr. Johnson said we are moving forward with county-to-county standardization as we build NC OneMap. Ms. Johnson asked if there was any estimate of counties that would conform to this standard. In the public safety and emergency response world, she stated, there needs to be a "carrot" for local governments that acts as a measure of conformance to the standard. She asked what the Council could do to drive conformance. Mr. Terry Ellis said his concern is that state route numbers must match to local government road names. The local government relies heavily on interaction with

the state DOT during emergency events. There is a real need to coordinate and establish the accuracy of the road name and state road number in a common database that can be shared by all users. Mr. Ellis also indicated there was a problem with the use of zipcodes as identifiers and with the road segment characterization. Mr. Stephen Puckett asked how we handle changes in street names and state route numbers. Mr. Robson replied that local government assigns names and addresses and it would be in the attributes. Ms. Diane Enright said that zipcodes should be added as an attribute.

Mr. Benton said the two issues seem to be the actual guidelines and follow-up implementation. Mr. Holman said the roads committee will continue to be active in refining the data model in version 2 and will address these issues.

Action #2: The Council adopted the Geographic Data Content Standard for
Transportation Roads Data, Version 1 as presented by the Statewide
Mapping Advisory Committee.

Priority #3—Access and Distribution

Susan Johnson reported no forward movement on the proposed federal “Guidelines for Providing Appropriate Access to Geospatial Data in Response to Security Concerns.” She did attend the Metropolitan Regions Spatial Information Workshop, hosted by US Geological Survey for local governments, private sector groups and regional organizations, to consider regional data collection, data architectures and long term support. Ms. Johnson said that NC OneMap and the Council are national models. The workshop is one of several meetings that will lead to a report by year end outlining various best practice models for data sharing along with supporting data architectures.

Priority #4—NC OneMap Implementation

Mr. Johnson reported that Governor Easley included NC OneMap in his 2006 budget with funding allocated to connect more communities and develop a database design. Staff briefed the Joint Appropriations Subcommittee on Natural and Economic Resources and demonstrated NC OneMap. One legislator asked if health statistics could be added; another member asked if anyone, including terrorists, could use NC OneMap. Mr. Johnson said he assured the committee that NC OneMap served the public, but it will take into consideration guidance from the Department of Crime Control and Public Safety concerning data restrictions relative to Homeland Security. NC OneMap funding is not in the current draft Senate budget.

The Department of Crime Control and Public Safety (CCPS) and Department of Environment and Natural Resources have allocated funding to add 35 more communities to NC OneMap this spring. The usage of NC OneMap continues to climb, reaching a peak of 1.2 million in February 2005. A user feedback button has been added to the web page that will help make the business case for NC OneMap. Ms. Troutman said NC OneMap has been recognized nationally and is an invited presentation at the National Association of Counties meeting this summer. Ms. Enright stated that her agency, the State Center for Health Statistics, will be upgrading their internet mapping service (IMS) this week and will be able to connect to NC OneMap in the near future, thus addressing one legislator’s suggestion.

Priority #5—State Government Data Inventory

Zsolt Nagy, Council staff, said the state government data inventory low response rate was rectified by staff scouring state web sites to locate more data sets and re-open the survey tool. There are now 150 state agency responses (up from 75), but there are potentially 165 more data sets that have been identified and no survey response has been received. There is a need for more effort.

Presentation: Charlotte Area Transit System Web Trip Planning

YaKeecha Sartor, the Business Systems Specialist in GIS for the Charlotte Area Transit System, presented on behalf of her winning entry in the Herb Stout Award competition at the 2005 North Carolina GIS Conference. Ms. Sartor showed the web trip planning system and how it helps as a trip planning tool for the public to enter a beginning and ending place to get a route, the bus boarding points, and times. The goals of the trip planning system were to give better customer information, increase the customer base, and accommodate customer inquiries on a 24/7 basis. The web program accomplishes these tasks since it provides access to schedules, and has reduced the phone call volume. The mapping includes street centerlines and landmarks.

There are several easy ways to use the trip planning system including entering a bus number, which shows all stops on the route. If people don't know the street name, but know a landmark, they can enter that, or an intersection, or specific address to find the buses that serve that area. There is a time-of-day option, return trip options, and the ability to route using the shortest walking distance, shortest time, or fewest transfers. The web site is both in English and Spanish and the maps are printable. Secretary Marshall asked if the program was developed in-house or by a vendor. Ms. Sartor said they used two consulting vendors, Ontira for the web application and mapping engine, and Giro for the API development (single threaded applications) through the Hastus database.

Committee Reports

Statewide Mapping Advisory Committee (SMAC). Bill Holman said that the last meeting considered how the SMAC might proceed with local governments concerning the mapping of conservation lands. Zsolt Nagy reported for Gary Thompson on acquisition of new digital orthoimagery by counties in North Carolina (see www.ncgs.state.nc.us/flood/county_gis_info.pdf for a spreadsheet and www.ncgs.state.nc.us/flood/imagery%202005-Model.jpg for a map detailing the counties flown in early 2005). Twenty-seven of 100 counties have not responded to a survey regarding plans for acquisition of digital orthoimagery during the recently completed 2005 flying season. Thirty-four counties were flown for imagery either through an individual county project, the Centralina Council of Government regional consortium, or the Floodplain Mapping Program. Don Holloway said that the 9-county Centralina region was complete, except for Burke County which had to be re-flown because of snow cover. The consortium received their control map and tile layouts. There are four pilot projects within the group to determine what the photography will look like in diverse terrain. The first county should be completed by September. Mr. Holloway extolled NC Geodetic Survey and its network of geodetic control points across the state that aid in processing digital orthoimagery.

Certified Charters and Boundary Maps. Rex Minneman reported on House Bill 1305: An Act Requiring Cities to File Certified Charters and Boundary Maps and Counties to File Certified Boundary and Township Maps with the Secretary of State. The first part of the bill requires municipalities to file corporate limit boundaries by July 1, 2006 and thence every July of the year preceding the decennial federal census, which would be all years ending with the number “9” (ex. 2009). Mr. Minneman said municipalities are filing annexation areas without the benefit of the entire municipal boundary description. Currently the Secretary of State receives 900-1,000 annexation maps each year. Another section of the proposed law requires municipalities to file certified true copies of charters and charter amendments on the same schedule as the maps.

Counties would be required to file maps of existing boundaries with a certified map by July 1, 2006, and thence every July of the year preceding the federal decennial census, as above. One other provision would require county managers to file a certified map with the Secretary of State showing the boundaries and names of all townships within the county on the same July schedule. Mr. Minneman said although townships are not a functioning unit of government, many operations (voting districts, tax office, and ABC stores) are delineated by township. Currently, counties can make township changes, but those changes are not centrally filed anywhere.

Kelly Laughton says the Local Government Committee has questions about this proposed law. First, how is a map defined: digital or paper? Mr. Minneman said that the Statewide Mapping Advisory Committee and the North Carolina Property Mappers Association would be consulted for the development of those standards and rules about submission. For the July 2006 date, any media would be accepted, but by 2009 there should be standards in place for electronic submission. In all cases the certifier is the County Clerk or City Clerk. Ms. Laughton asked if the surveyor community needs to prepare the map. Mr. Minneman said the map could be prepared by use of GIS and can be certified by the Clerk as to the true boundaries. Ms. Laughton said the Local Government Committee looks forward to working with the SMAC on standards.

Anne Payne said corporate limits in some growing counties and cities are changing daily. She questioned the length of a 9-year update cycle. Mr. Minneman said the law was not meant to burden smaller communities with reporting requirements, and annexations would continue to be filed. Ms. Payne asked why this law is needed. Mr. Minneman said the state has jurisdiction over all governmental subdivisions, but it is not the boundary police for county border disputes. If a county boundary change is filed, the Secretary of State’s office would assume it is official for that county filing. Mr. Ellis said Johnston County recently had a boundary dispute and went through the Registrar of Deeds. The US Census Bureau also requests boundary information from counties, and Ellis asked if counties can just provide it to the Secretary of State instead.

Dr. Mandell said that the Secretary of State is acting as a repository for boundaries. Just as the state demographer starts out fresh after every census, the Secretary of State would start out the same and add the annexations for that next 10-year period. Dr. Mandell said that there were 4,200 annexations within a 5-year period in North Carolina. The League of Municipalities is notifying utilities, US Bureau of the Census, registrars of deeds and the state demographer about this legislation and he urged the Secretary of State to work closely with the state demographer to get better boundary and population representation. Mr. Minneman said it could benefit towns. Dr. Mandell says the League can help get the word out to towns and cities across the state. Mr. Minneman said the plan is to put annexations on the Internet and promote it to the municipalities. He stated that many towns do not comply with annexation reporting requirements.

Ms. Laughton said this is another example of how the NC OneMap tool can be used. Mr. Minneman said the map presented to the Secretary of State requires the certification from the City or County Clerk as to showing the true and accurate boundaries. John Dorman stated that the Floodplain Mapping Program is digitizing city and county boundaries on the floodplain maps and these maps showing boundaries must also be certified by the Clerk. Dr. Mandell said it appeared that there are implications for implementing provisions of this bill, after it is passed.

State Government GIS Users Committee (SGUC). Dianne Enright reported that the SGUC will meet in July and that the ESRI state government enterprise license is in the hands of lawyers before it can be finalized.

Local Government Committee (LGC). Kelly Laughton said that the committee met May 10. She said the Surveyor's Law *Ad Hoc* Committee members, Joe McKinney and Andrew Shore, would continue to serve when that committee reconvenes to work with the NC Board of Engineers and Land Surveyors on the draft Model law as submitted by the Council. She mentioned that a 9-county regional orthophotography proposal was submitted for Homeland Security funding through a state grant program, but it was not successful. The project would have resulted in imagery from five more western counties being made available through NC OneMap. However, the partnerships created in the proposal will continue. The Local Government Committee is ready to work with the 10 western counties that are now involved in a landslide mapping effort to see if there is any possibility for a regional cost-share on orthoimagery. Ms. Laughton said she is looking forward to representing North Carolina and the Local Government Committee in a session on local-state-federal government cooperation at the National Association of County Commissioners meeting this summer in Hawaii.

Federal Interagency Committee (FIC). Chris Kannan said the committee met at the March 2005 NC GIS Conference. It was an opportunity for the numerous agencies to discuss how to encourage better dialog. The National Digital Orthophotography (NDOP) steering committee held an annual meeting in Asheville, May 3-6. There were five presentations on related activities in North Carolina and the committee welcomed that input. The recent National Hydrography Dataset (NHD) workshop in Raleigh attracted 40 participants who considered the richness of the dataset and possible GIS applications. He mentioned that the 2005 Cooperative Agreements grants program sponsored by the Federal Geographic Data Committee will offer several categories of grants carrying awards of \$20,000 to \$50,000. Mr. Benton asked if the FIC proposes doing a federal data inventory for NC OneMap. Mr. Kannan said that the FIC group is interested in a federal data inventory but needs to discuss this matter further.

Management and Operations Committee (M&O). Tim Johnson said the committee had no report.

GIS Technical Advisory Committee (TAC). Susan Johnson said that the committee had no report but would piggy-back its meeting with the next Management and Operations.

Presentation: GIS in Support of Local Government in Iraq

Bill Wheaton, manager of the Program for Geospatial Science and Technology, mentioned that his employer, Research Triangle Institute (RTI), is a not-for-profit company established in 1958 and is controlled by the three Triangle universities. RTI employs 2,500 staff conducting

contract research. In April 2003 Triangle Research Institute began a US AID contract to work in Iraq. The two year contract (\$140 million in first year; \$80 million in second year) required massive mobilization to complete the tasks. The contract sought to strengthen management skills of civic institutions and local administration to improve the delivery of essential municipal services (water, sewer, health, financial). The use of GIS was not mentioned in the procurement, but was necessary to support staff and task management. Two hundred RTI staff trained at Fort Hood, Texas and went to work in Iraq with subcontractors and 2,000 local Iraqi staff spread throughout the 18 governorate capitals. Many of the staff had foreign-service experience.

Initial problems in 2003 involved in-country transportation and the fact that there were no operating banks. Everything had to be on a cash basis out of Kuwait. The RTI staff had to set up their own telecommunication as well. The GIS operation to provide mapping support found there was nothing recent available except for 1977 topographic base maps created by the Soviets, but they were all in the Cyrillic alphabet. Agriculture is the second largest sector of the economy and soil salinity applications were needed to plan for irrigation, as well as numerous thematic maps. Data acquisition was a priority (April to August 2003) and GIS staff found numerous data sources, including US AID, which became the base data. A 100,000-scale series of maps was produced, but it did not form a consistent base map across all 126 tiles. A map book (8-1/2 x 11 inches) was produced for each of the 18 governorates using the ESRI ArcGIS Mapbook software. The map books included hydrography, railroads, communications towers, roads, radio/television broadcast areas. Cities were shown with existing satellite imagery purchased from major satellite vendors. The GIS team also did a web portal to offer the maps and data with a *Village Finder* application.

In Mosul they were able to map the water system and plan for future growth using the blue line maps from a graduate student's Masters Thesis at the University of Baghdad. Baghdad had actually been using GIS until the mid-1980s so the RTI project restarted that effort. The thematic maps were useful for local government planners and provided basic information. GIS was used as a tool in the war room at RTI during the Al-Sadr uprising in Najaf and hostage negotiations. There have been two new contracts awarded to continue local governance support and a conduct a training program for the Ministry of Health in Iraq.

Other Business

Dr. Hugh Devine said the University of North Carolina system has negotiated a university-wide ESRI agreement that includes 12 participating institutions. He mentioned that the university community is organizing a group to feed information to both the Council and to the Statewide Mapping Advisory Committee. He also mentioned that the universities want to serve on the program committee at the next North Carolina GIS Conference, emphasizing research using GIS.

Tim Johnson said a citizen's letter to the governor was referred to the Council. The letter requested that federal geospatial data be released to the public, referring specifically to high-resolution imagery, such as that collected by the Department of Defense. Dempsey Benton asked the Federal Interagency Committee to consider this letter and how the Governor might reply.

John Dorman said the Floodplain Mapping Program is completing the Cape Fear River Basin and released Wake County and Dare County data in April. Alamance, Pender, Polk and Chatham

counties will be out soon. LIDAR for all the 17 western counties has now been acquired in the recent flying season. There is still a problem with orthophotography currency, but 15 counties were flown this winter. Swain and Madison counties have not been completed because of snow.

Mr. Johnson said the Council's letter to the NC Board of Engineers and Land Surveyors will be sent shortly with the recommendation that the GICC expects to remain involved in the discussion of the Model Law.

Mr. Johnson said the 9th North Carolina GIS Conference was one of the largest in recent years with almost 900 people attending and 40 exhibitors. A map was provided in the handouts that showed the geographic distribution of participants across the state. The largest representations were from Wake, Guilford, Mecklenburg, Forsyth, Buncombe, Gaston, Catawba, Orange, Durham, Pitt, and Cumberland counties.

Mr. Terry Ellis asked if the Council recommends a particular metadata tool, since SMMS was acquired by Intergraph. He was told he could use ArcCatalog, an ESRI product and could also talk with Lynda Wayne in Asheville since she was a Federal Geographic Data Committee training expert on metadata.

ADJOURNMENT

There being no other business, the meeting was adjourned. The next meeting will be held August 10, 2005, 1:00-3:00 pm at the Department of Public Instruction Board Room, Room 755, 301 N. Wilmington Street, Raleigh.

All PowerPoint presentations and reports are on the Council Web site: www.cgia.state.nc.us/gicc, then click on "Meetings." The individual "Presentation" icons follow the Agenda and Minutes.

2005 Meeting Schedule

Wednesday, August 10	1:00-3:00 pm
Wednesday, November 9	1:00-3:00 pm